

In the Claims:

Please amend the claims as follows:

Claims 1-22 (Canceled).

23. (Previously Amended) A method for adapting a software product to an environment, the method comprising:

providing the software product with a first portion of code including instructions for performing a predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value;

providing the software product with a second portion of code having stored therein the operating parameter value, a mutation rate and a set of probabilistic mutation criteria; and

responsive to an occurrence of a predetermined event associated with the environment, using the mutation rate and the probabilistic mutation criteria to determine if the operating parameter value should mutate, and

changing the operating parameter value in response to a determination that the operating parameter value should mutate.

24. (Previously Amended) A method according to claim 23 further comprising:

providing the software product with a third portion of code that includes instructions for carrying out the step of using the mutation rate and the probabilistic mutation criteria to determine if the operating parameter value should mutate and the step of changing the operating parameter value.

25. (Previously Amended) A method according to claim 23 wherein the step of changing the operating parameter value includes substantially randomly selecting a new operating parameter from a predetermined range of values.

26. (Previously Amended) A method according to claim 23 wherein the predetermined event is selected from a group consisting of a user-to-user copying event, operation of the product, unlocking of a product feature and a change to a predetermined operating parameter of the product.

27. (Previously Amended) A method according to claim 23 wherein the second portion of code has stored therein a set of lineage-relevant information relating to a plurality of lineage-relevant events resulting in the product, and wherein the method further comprises:

responsive to the occurrence of a predetermined event, modifying the set of lineage-relevant information to include information relating to the occurrence of the predetermined event.

28. (Previously Amended) A method according to claim 27 further comprising:

transmitting the set of lineage-relevant information to a central database.

29. (Previously Amended) A method according to claim 23 further comprising:

changing the mutation rate to a predetermined replacement mutation rate.

30. (Previously Amended) A method according to claim 29 wherein the desirable replacement mutation rate is zero.

31. (Previously Amended) A method according to claim 30 further

comprising:

changing the operating parameter value to a desirable fixed value.

32. (Previously Amended) A method according to claim 27 wherein the set of

lineage-relevant information is stored in the second portion of code as a plurality of bits, at least one of the bits having been selected at random and its state changed in response to each of the plurality of lineage-relevant events resulting in the product.

33. (Previously Amended) A method for adapting a software product to an

environment, the method comprising:

providing the software product with a first portion of code including instructions for performing a predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value;

providing the software product with a second portion of code having stored therein the operating parameter value, a mutation rate, a set of probabilistic mutation criteria and a set of lineage-relevant information relating to a plurality of lineage-relevant events resulting in the product;

providing the software product with a third portion of code that includes instructions for changing the operating parameter value in response to an occurrence of a predetermined event associated with the environment and a determination that the operating parameter value should mutate; and

responsive to an occurrence of a predetermined event associated with the environment,

using the mutation rate and the probabilistic mutation criteria to determine if the operating parameter value should mutate, and

changing the operating parameter value in response to a determination that the operating parameter value should mutate.

34. (Previously Amended) A method according to claim 33 wherein the step of changing the operating parameter value includes substantially randomly selecting a new operating parameter from a predetermined range of values.

35. (Previously Amended) A method according to claim 33 wherein the predetermined event is selected from a group consisting of a user-to-user copying event, operation of the product, unlocking of a product feature and a change to a predetermined operating parameter of the product.

36. (Previously Amended) A method according to claim 33 further comprising:

responsive to the occurrence of a predetermined event, modifying the set of lineage-relevant information to include information relating to the occurrence of the predetermined event.

37. (Previously Amended) A method according to claim 36 further comprising:

transmitting the set of lineage-relevant information to a central database.

38. (Previously Amended) A method according to claim 37 further comprising:

transmitting a replacement mutation rate from the central database to the software product.

39. (Previously Amended) A method according to claim 38 wherein the replacement mutation rate is zero.

40. (Previously Amended) A method according to claim 37 further comprising:

transmitting a replacement operating parameter value from the central database to the software product.

41. (Previously Amended) A method according to claim 33 wherein the set of lineage-relevant information is stored in the second portion of code as a plurality of bits, at least one of the bits having been selected at random and its state changed in response to each of the plurality of lineage-relevant events resulting in the product.

42. (Previously Amended) A method for adapting a software product to an environment, the method comprising:

providing the software product with a first portion of code including instructions for performing a predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value;

providing the software product with a second portion of code having stored therein the operating parameter value, a mutation rate, a set of probabilistic mutation criteria and a set of lineage-relevant information relating to a plurality of lineage-relevant events resulting in the product;

providing the software product with a third portion of code that includes instructions for changing the operating parameter value in response to an occurrence of a predetermined event associated with the environment and a determination that the operating parameter value should mutate; and

responsive to an occurrence of a predetermined event selected from a group consisting of a user-to-user copying event, operation of the product, unlocking of a product feature and a change to a predetermined operating parameter of the product, using the mutation rate and the probabilistic mutation criteria to determine if the operating parameter value should mutate,

changing the operating parameter value by substantially randomly selecting a new operating parameter from a predetermined range of values in response to a determination that the operating parameter value should mutate, and

modifying the set of lineage-relevant information to include information relating to the occurrence of the predetermined event.

43. (Previously Amended) A method according to claim 42 further comprising:

transmitting the set of lineage-relevant information to a central database.

44. (Previously Amended) A method according to claim 43 further comprising:

transmitting a replacement mutation rate from the central database to the software product.

45. (Previously Amended) A method according to claim 43 further comprising:

transmitting a replacement operating parameter value from the central database to the software product.

46. (Previously Amended) A method according to claim 42 wherein the set of lineage-relevant information is stored in the second portion of code as a plurality of bits, at least

one of the bits having been selected at random and its state changed in response to each of the plurality of lineage-relevant events resulting in the product.

47. (Previously Amended) A method for adapting a software product to an environment, the method comprising:

providing a plurality of software products each having a first portion of code including instructions for performing a predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value, a second portion of code having stored therein the operating parameter value, a mutation rate, a set of probabilistic mutation criteria and a set of lineage-relevant information relating to a plurality of lineage-relevant events resulting in the product, and a third portion of code that includes instructions for changing the operating parameter value in response to an occurrence of a predetermined event associated with the environment and a determination that the operating parameter value should mutate;

receiving at a central database a transmission of the lineage-relevant information from at least a portion of the plurality of software products; and

performing a statistical analysis of the lineage-relevant information from all of the at least a portion of the plurality of software products to ascertain a set of desirable characteristics for the software products.

48. (Previously Amended) A method according to claim 47 further comprising:

determining from the statistical analysis a desirable replacement mutation rate; and

transmitting the desirable replacement mutation rate to at least one of the plurality of software products.

49. (Previously Amended) A method according to claim 47 further comprising:

determining from the statistical analysis a desirable replacement operating parameter value; and

transmitting the desirable replacement operating parameter value to at least one of the plurality of software products.

50. (Previously Amended) A computer program product for performing a predetermined function, the product comprising:

a computer readable medium;

a first portion of code that is stored on the medium and that includes instructions for performing the predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value;

a second portion of code that is stored on the medium and that includes the operating parameter value, a mutation rate and a set of probabilistic mutation criteria; and

a third portion of code that is stored on the medium and that includes instructions for modifying the operating parameter value in response to a combination of an occurrence of a predetermined event and a determination that the probabilistic mutation criteria have been met.

51. (Previously Amended) A computer program product according to claim 50 wherein the third portion of code includes means for monitoring changes to the environment and means for identifying the occurrence of a predetermined event.

52. (Previously Amended) A computer program product according to claim 50 wherein the predetermined event is selected from a group consisting of a user-to-user copying event, operation of the product, unlocking of a product feature and a change to a predetermined operating parameter of the product.

53. (Previously Amended) A computer program product according to claim 50 wherein the second portion of code includes a set of lineage-relevant information relating to at least one lineage-relevant event resulting in the product and wherein the second portion of code is configured for receiving additional information relating to at least one of a user-to-user copying event, operation of the product, unlocking of features of the product and a change to operating parameters of the product.

54. (Previously Amended) A computer program product according to claim 53 wherein the lineage-relevant information is stored in the second portion of code as a plurality of bits, at least one of the bits having been selected at random and its state changed in response to each lineage-relevant event in the chain resulting in the product.

55. (Previously Amended) A computer program product for performing a predetermined function, the product comprising:

a computer readable medium;

a first portion of code that is stored on the medium and that includes instructions for performing the predetermined function, at least one aspect of performing the predetermined function being controllable by an operating parameter value;

a second portion of code that is stored on the medium and that includes the operating parameter value, a mutation rate, a set of probabilistic mutation criteria and a set of lineage-relevant information relating to at least one lineage-relevant event resulting in the

product, the second portion of code being configured for receiving additional information relating to at least one of a user-to-user copying event, operation of the product, unlocking of features of the product and a change to operating parameters of the product;

a third portion of code that is stored on the medium and that includes means for identifying an occurrence of a predetermined event, means for determining that the probabilistic mutation criteria have been met and means for modifying the operating parameter value in response to a combination of an occurrence of a predetermined event and a determination that the probabilistic mutation criteria have been met.

56. (Previously Amended) A computer program product according to claim 55 wherein the predetermined event is selected from a group consisting of a user-to-user copying event, operation of the product, unlocking of a product feature and a change to a predetermined operating parameter of the product.

57. (Previously Amended) A computer program product according to claim 55 wherein the lineage-relevant information is stored in the second portion of code as a plurality of bits, at least one of the bits having been selected at random and its state changed in response to each lineage-relevant event in the chain resulting in the product.

58. (New) A method for generating a variation of a digital information instance, the method comprising:

providing the digital information instance, the digital information instance having a first portion of functional data used in performing a computerized function, at least one aspect of performing the function being affected by a parameter setting, and a second portion of data including at least the parameter setting; and

changing the parameter setting in response to a circumstance as determined using parameter setting change data.

59. (New) The method of claim 58, wherein the circumstance comprises a copying event related to the digital information instance.

60. (New) The method of claim 58, wherein the circumstance comprises a purchasing event related to the digital information instance.

61. (New) The method of claim 58, wherein the digital information instance comprises an executable digital information instance and wherein the circumstance comprises an execution event related to the digital information instance.

62. (New) The method of claim 58, wherein changing the parameter setting comprises changing in response to an event based on an amount of time related to the digital information instance.

63. (New) The method of claim 62, wherein changing in response to an event based on an amount of time comprises changing in response to a duration of time the digital information instance has been used in performing the computerized function.

64. (New) The method of claim 58, wherein changing the parameter setting comprises changing in a probabilistic manner.

65. (New) The method of claim 58, wherein changing the parameter setting comprises changing according to information transmitted from a server.

66. (New) The method of claim 65, wherein changing according to information transmitted from a server comprises using the information transmitted to prevent future changes to the parameter setting of the digital information instance.

67. (New) The method of claim 65, wherein changing according to information transmitted from a server comprises using the information transmitted to prevent future changes to the parameter setting of a copy of the digital information instance.

68. (New) The method of claim 58, comprising providing an executable digital information instance.

69. (New) The method of claim 58, comprising providing a non-executable digital information instance.

70. (New) The method of claim 58, wherein providing a first portion of functional data comprises providing a first portion of functional data that is not physically distinct from the second portion of data.

71. (New) The method of claim 58, wherein providing a first portion of functional data comprises providing a data structure and wherein the second portion of data is stored within the data structure.

72. (New) The method of claim 71, wherein providing a data structure comprises providing a data structure representing an image.

73. (New) The method of claim 58, comprising providing a first portion of functional data used in performing a computerized function wherein the digital information instance performs the computerized function.

74. (New) The method of claim 58, comprising providing a first portion of functional data used in performing a computerized function wherein the digital information instance does not perform the computerized function.

75. (New) The method of claim 74, comprising providing software or hardware capable of using the functional data to perform the computerized function.

76. (New) The method of claim 58, comprising including the parameter setting change data in the second portion of data of the digital information instance.

77. (New) The method of claim 58, comprising transmitting the parameter setting change data from a server.

78. (New) The method of claim 58, wherein providing the digital information instance comprises receiving the digital information instance by a user.

79. (New) The method of claim 58, wherein providing the digital information instance comprises communicating the digital information instance to a user.

80. (New) The method of claim 58, comprising providing the second portion of data including digital information instance lineage-relevant information.

81. (New) The method of claim 80, comprising
receiving the digital information instance lineage-relevant information at a
database; and

performing analysis of the digital information instance lineage-relevant
information to infer a set of desirable characteristics for the digital information instance.

82. (New) A memory device for storing a data structure used in generating a
variation of a digital information instance, the data structure representing a digital information
instance and comprising:

a first portion of functional data used in performing a computerized function, at
least one aspect of performing the function being affected by a parameter setting; and

a second portion of data including at least the parameter setting; and

wherein the parameter setting is changeable in response to a circumstance as
determined using parameter setting change data.

83. (New) The memory device of claim 82, wherein the circumstance comprises a copying event related to the digital information instance.

84. (New) The memory device of claim 82, wherein the circumstance comprises a purchasing event related to the digital information instance.

85. (New) The memory device of claim 82, wherein the digital information instance comprises an executable digital information instance and wherein the circumstance comprises an execution event related to the digital information instance.

86. (New) The memory device of claim 82, wherein the parameter setting is changeable in response to an event based on an amount of time related to the digital information instance.

87. (New) The memory device of claim 86, wherein the parameter setting is changeable in response to a duration of time the digital information instance has been used in performing the computerized function.

88. (New) The memory device of claim 82, wherein the parameter setting is changeable in a probabilistic manner.

89. (New) The memory device of claim 82, wherein the parameter setting is changeable according to information transmitted from a server.

90. (New) The memory device of claim 89, wherein the information transmitted from the server is used to prevent future changes to the parameter setting of the digital information instance.

91. (New) The memory device of claim 89, wherein the information transmitted from the server is used to prevent future changes to the parameter setting of a copy of the digital information instance.

92. (New) The memory device of claim 82, wherein the digital information instance comprises an executable digital information instance.

93. (New) The memory device of claim 82, wherein the digital information instance comprises a non-executable digital information instance.

94. (New) The memory device of claim 82, wherein the first portion of functional data is not physically distinct from the second portion of data.

95. (New) The memory device of claim 82, wherein the first portion of functional data comprises a data structure and wherein the second portion of data is stored within the data structure.

96. (New) The memory device of claim 95, wherein the data structure comprises a data structure representing an image.

97. (New) The memory device of claim 82, wherein the digital information instance uses the first portion of functional data to perform the computerized function.

98. (New) The memory device of claim 82, wherein the digital information instance does not use the first portion of functional data to perform the computerized function.

99. (New) The memory device of claim 98, comprising software or hardware capable of using the functional data to perform the computerized function.

100. (New) The memory device of claim 82, wherein the parameter setting change data is included in the second portion of data.

101. (New) The memory device of claim 82, wherein the parameter setting change data is transmitted from a server.

102. (New) The memory device of claim 82, wherein the second portion of data includes digital information instance lineage-relevant information.

103. (New) The memory device of claim 102, wherein the digital information instance lineage-relevant information is received at a database; and

comprising performing analysis of the digital information instance lineage-relevant information to infer a set of desirable characteristics for the digital information instance.

104. (New) A computer usable medium or media storing program code which, when executed on a computerized device, causes the computerized device to execute a method for generating a variation of a digital information instance, the method comprising:

providing the digital information instance, the digital information instance having a first portion of functional data used in performing a computerized function, at least one aspect of performing the function being affected by a parameter setting, and a second portion of data including at least the parameter setting; and

changing the parameter setting in response to a circumstance as determined using parameter setting change data.

105. (New) The computer usable medium or media of claim 104, wherein the circumstance comprises a copying event related to the digital information instance.

106. (New) The computer usable medium or media of claim 104, wherein the circumstance comprises a purchasing event related to the digital information instance.

107. (New) The computer usable medium or media of claim 104, wherein the digital information instance comprises an executable digital information instance and wherein the circumstance comprises an execution event related to the digital information instance.

108. (New) The computer usable medium or media of claim 104, wherein the method of changing the parameter setting comprises changing in response to an event based on an amount of time related to the digital information instance.

109. (New) The computer usable medium or media of claim 108, wherein the method of changing in response to an event based on an amount of time comprises changing in response to a duration of time the digital information instance has been used in performing the computerized function.

110. (New) The computer usable medium or media of claim 104, wherein the method of changing the parameter setting comprises changing in a probabilistic manner.

111. (New) The computer usable medium or media of claim 104, wherein the method of changing the parameter setting comprises changing according to information transmitted from a server.

112. (New) The computer usable medium or media of claim 111, wherein the method of changing according to information transmitted from a server comprises using the information transmitted to prevent future changes to the parameter setting of the digital information instance.

113. (New) The computer usable medium or media of claim 111, wherein the method of changing according to information transmitted from a server comprises using the information transmitted to prevent future changes to the parameter setting of a copy of the digital information instance.

114. (New) The computer usable medium or media of claim 104, wherein the method further comprises providing an executable digital information instance.

115. (New) The computer usable medium or media of claim 104, wherein the method further comprises providing a non-executable digital information instance.

116. (New) The computer usable medium or media of claim 104, wherein the method of providing a first portion of functional data comprises providing a first portion of functional data that is not physically distinct from the second portion of data.

117. (New) The computer usable medium or media of claim 104, wherein the method of providing a first portion of functional data comprises providing a data structure and wherein the second portion of data is stored within the data structure.

118. (New) The computer usable medium or media of claim 117, wherein the method of providing a data structure comprises providing a data structure representing an image.

119. (New) The computer usable medium or media of claim 118, wherein the method further comprises providing a first portion of functional data used in performing a computerized function wherein the digital information instance performs the computerized function.

120. (New) The computer usable medium or media of claim 104, wherein the method further comprises providing a first portion of functional data used in performing a computerized function wherein the digital information instance does not perform the computerized function.

121. (New) The computer usable medium or media of claim 120, wherein the method further comprises providing software or hardware capable of using the functional data to perform the computerized function.

122. (New) The computer usable medium or media of claim 104, wherein the parameter setting change data is included in the second portion of data of the digital information instance.

123. (New) The computer usable medium or media of claim 104, wherein the parameter setting change data is transmitted from a server.

124. (New) The computer usable medium or media of claim 104, wherein providing the digital information instance comprises receiving the digital information instance by a user.

125. (New) The computer usable medium or media of claim 104, wherein providing the digital information instance comprises communicating the digital information instance to a user.

126. (New) The computer usable medium or media of claim 104, wherein the method further comprises providing the second portion of data including digital information instance lineage-relevant information.

127. (New) The computer usable medium or media of claim 126, wherein the method further comprises

receiving the digital information instance lineage-relevant information at a database; and

performing analysis of the digital information instance lineage-relevant information to infer a set of desirable characteristics for the digital information instance.

128. (New) A system for generating a variation of a digital information instance, the system comprising:

a memory device for storing a digital information instance comprising:

a first portion of functional data used in performing a computerized function, at least one aspect of performing the function being affected by a parameter setting; and

a second portion of data including at least the parameter setting; and

a computerized processor programmed to change the parameter setting in response to a circumstance as determined using parameter setting change data.

129. (New) The system of claim 128, wherein the circumstance comprises a copying event related to the digital information instance.

130. (New) The system of claim 128, wherein the circumstance comprises a purchasing event related to the digital information instance.

131. (New) The system of claim 128, wherein the digital information instance comprises an executable digital information instance and wherein the circumstance comprises an execution event related to the digital information instance.

132. (New) The system of claim 128, wherein the parameter setting is changeable in response to an event based on an amount of time related to the digital information instance.

133. (New) The system of claim 132, wherein the parameter setting is changeable in response to a duration of time the digital information instance has been used in performing a computerized function.

134. (New) The system of claim 128, wherein the parameter setting is changeable in a probabilistic manner.

135. (New) The system of claim 128, wherein the parameter setting is changeable according to information transmitted from a server.

136. (New) The system of claim 135, wherein the information transmitted from the server is used to prevent future changes to the parameter setting of the digital information instance.

137. (New) The system of claim 135, wherein the information transmitted from the server is used to prevent future changes to the parameter setting of a copy of the digital information instance.

138. (New) The system of claim 128, wherein the digital information instance comprises an executable digital information instance.

139. (New) The system of claim 128, wherein the digital information instance comprises a non-executable digital information instance.

140. (New) The system of claim 128, wherein the first portion of functional data is not physically distinct from the second portion of data.

141. (New) The system of claim 128, wherein the first portion of functional data comprises a data structure and wherein the second portion of data is stored within the data structure.

142. (New) The system of claim 141, wherein the data structure comprises a data structure representing an image.

143. (New) The system of claim 128, wherein the digital information instance uses the first portion of functional data to perform the computerized function.

144. (New) The system of claim 128, wherein the digital information instance does not use the first portion of functional data to perform the computerized function.

145. (New) The system of claim 144, comprising providing software or hardware capable of using the functional data to perform the computerized function.

146. (New) The system of claim 128 wherein the parameter setting change data is included in the second portion of data of the digital information instance.

147. (New) The system of claim 128, wherein the parameter setting change data is transmitted from a server.

148. (New) The system of claim 128, wherein the second portion of data includes digital information instance lineage-relevant information.

149. (New) The system of claim 148, comprising a database;
receiving the digital information instance lineage-relevant information at the database; and
comprising performing analysis of the digital information instance lineage-relevant information to infer a set of desirable characteristics for the digital information instance.

150. (New) A system for performing a method for generating a variation of a digital information instance, the system comprising:

means for providing the digital information instance, the digital information instance having a first portion of functional data used in performing a computerized function, at least one aspect of performing the function being affected by a parameter setting;

means for providing the digital information instance, the digital information instance having a second portion of data including at least the parameter setting; and

means for changing the parameter setting in response to a circumstance as determined using parameter setting change data.

151. (New) The system of claim 150, wherein the circumstance comprises a copying event related to the digital information instance.

152. (New) The system of claim 150, wherein the circumstance comprises a purchasing event related to the digital information instance.

153. (New) The system of claim 150, wherein means for the digital information instance comprises an executable digital information instance and wherein the circumstance comprises an execution event related to the digital information instance.

154. (New) The system of claim 150, wherein means for changing the parameter setting comprises means for changing in response to an event based on an amount of time related to the digital information instance.

155. (New) The system of claim 154, wherein means for changing in response to an event based on an amount of time comprises means for changing in response to a duration of time the digital information instance has been used in performing the computerized function.

156. (New) The system of claim 150, wherein means for changing the parameter setting comprises means for changing in a probabilistic manner.

157. (New) The system of claim 150, wherein means for changing the parameter setting comprises means for changing according to information transmitted from a server.

158. (New) The system of claim 157, wherein means for changing according to information transmitted from a server comprises means for using the information transmitted to prevent future changes to the parameter setting of the digital information instance.

159. (New) The system of claim 157, wherein means for changing according to information transmitted from a server comprises means for using the information transmitted to prevent future changes to the parameter setting of a copy of the digital information instance.

160. (New) The system of claim 150, comprising means for providing an executable digital information instance.

161. (New) The system of claim 150, comprising means for providing a non-executable digital information instance.

162. (New) The system of claim 150, wherein means for providing a first portion of functional data comprises means for providing a first portion of functional data that is not physically distinct from the second portion of data.

163. (New) The system of claim 150, wherein means for providing a first portion of functional data comprises means for providing a data structure and wherein the second portion of data is stored within the data structure.

164. (New) The system of claim 163, wherein means for providing a data structure comprises means for providing a data structure representing an image.

165. (New) The system of claim 150, comprising means for providing a first portion of functional data used in performing a computerized function wherein the digital information instance performs the computerized function.

166. (New) The system of claim 150, comprising means for providing a first portion of functional data used in performing a computerized function wherein the digital information instance does not perform the computerized function.

167. (New) The system of claim 166, comprising means for providing software or hardware capable of using the functional data to perform the computerized function.

168. (New) The system of claim 150, wherein the parameter setting change data is included in the second portion of data of the digital information instance.

169. (New) The system of claim 150, wherein the parameter setting change data is transmitted from a server.

170. (New) The system of claim 150 wherein means for providing the digital information instance comprises means for receiving the digital information instance by a user.

171. (New) The system of claim 150, wherein means for providing the digital information instance comprises means for communicating the digital information instance to a user.

172. (New) The system of claim 150, comprising means for providing the second portion of data including digital information instance lineage-relevant information.

173. (New) The system of claim 172, comprising
means for receiving the digital information instance lineage-relevant information at a database; and

means for performing analysis of the digital information instance lineage-relevant information to infer a set of desirable characteristics for the digital information instance.